

STATE OF CALIFORNIA
CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
DEPARTMENT OF TOXIC SUBSTANCES CONTROL

In the Matter of:)	Docket No. I&SE-RAO 02/03-012
)	
Amtrak Redondo Junction)	IMMINENT AND SUBSTANTIAL
Facility)	ENDANGERMENT DETERMINATION AND
2435 East Washington Boulevard)	ORDER AND REMEDIAL ACTION ORDER
Los Angeles, California 90021)	
)	Health and Safety Code Sections
)	25355.5(a)(1)(B),
)	25358.3(a), 58009 and 58010
Respondent:)	
)	
National Railroad Passenger)	
Corporation dba Amtrak)	
810 North Alameda Street)	
Los Angeles, California 90012)	
)	

I. INTRODUCTION

1.1 Parties. The California Environmental Protection Agency, Department of Toxic Substances Control (DTSC) issues this Imminent and Substantial Endangerment Determination and Order and Remedial Action Order (Order) to National Railroad Passenger Corporation, a federally chartered corporation (Respondent), dba Amtrak (Amtrak).

1.2 Site. This Order applies to the Amtrak Redondo Junction Facility located at 2435 East Washington Boulevard, City of Los Angeles, Los Angeles County, California 90012 (Amtrak Property). The property consists of approximately 50 acres. A map of the property is attached as Exhibit A. This Order applies to the Amtrak Property and the areal extent of contamination that resulted from activities on that property (hereinafter, the "Site").

1.3 Jurisdiction. This Order is issued by DTSC to Respondent pursuant to its authority under Health and Safety Code sections 25355.5(a)(1)(B), 25358.3(a), 58009 and 58010.

Health and Safety Code section 25355.5(a)(1)(B) authorizes DTSC to issue an order establishing a schedule for removing or remedying a release of a hazardous substance at a site, or for correcting the conditions that threaten the release of a hazardous substance. The order may include, but is not limited to, requiring specific dates by which the nature and extent of a release shall be determined and the site

adequately characterized, a remedial action plan prepared and submitted to DTSC for approval, and a removal or remedial action completed.

Health and Safety Code section 25358.3(a) authorizes DTSC to take various actions, including issuance of an imminent and substantial endangerment determination and order, when DTSC determines that there may be an imminent or substantial endangerment to the public health or welfare or to the environment, because of a release or a threatened release of a hazardous substance.

Health and Safety Code section 58009 authorizes DTSC to commence and maintain all proper and necessary actions and proceedings to enforce its rules and regulations; to enjoin and abate nuisances related to matters within its jurisdiction that are dangerous to health; to compel the performance of any act specifically enjoined upon any person, officer, or board, by any law of this state relating to matters within its jurisdiction; and/or on matters within its jurisdiction, to protect and preserve the public health.

Health and Safety Code section 58010 authorizes DTSC to abate public nuisances related to matters within its jurisdiction.

II. FINDINGS OF FACT

DTSC hereby finds:

2.1 Liability of Respondent. Respondent is a responsible party or liable person as defined in Health and Safety Code section 25323.5. Amtrak is the current owner of the Site. In 1976, Amtrak acquired the property from The Atchison, Topeka and Santa Fe Railway Company, which in 1995 became Burlington Northern Santa Fe Corporation.

2.2 Physical Description of Site. The Amtrak Redondo Junction Facility occupies approximately 50 acres and is approximately ½ mile south of Interstate 10. The Site is bounded by 6th Street on the north, the Los Angeles River on the east, Washington Boulevard and Butte Street on the south, and State Surplus Parcel No. SSL-497 and Santa Fe Avenue on the west. Based on the United States Geological Survey 7.5 minute topographic map for Los Angeles, California (1966, photorevised 1981), the Site has an elevation of approximately 225 feet above mean sea level. The surface at the Site slopes to the south and southeast towards the Los Angeles River.

2.3 Site History.

2.3.1 Prior to 1849, the entire area was cultivated soil; no structures existed on the Site. By 1898, the Site was developed and the Los Angeles River was channeled to its present course. The Site has been continuously used for industrial purposes since the late 1800s. The Atchison, Topeka, and Santa Fe Railway Company (now Burlington Northern Santa Fe Corporation) and its predecessors owned and occupied the Amtrak

Property from 1885 to 1976. Amtrak has owned and operated the Amtrak Property from 1976 to the present. The Amtrak Property currently operates as a train maintenance yard. Burlington Northern Santa Fe Railroad retains some track rights for train operation and tank car storage. Various chemical substances have been used, and are currently being used in small quantities at the Amtrak Property for equipment cleaning and maintenance purposes.

2.3.2 In 1981, DTSC documented a release of an unknown hazardous substance leaking from a parked railroad tanker car on the adjacent SSL-497 property, which was then owned by the Atchison Topeka and Santa Fe Railway Company.

2.3.3 In May 1995, Riedel/Smith Environmental Technologies Corporation completed a Phase II Environmental Assessment for the Site. The investigation detected concentrations of total recoverable petroleum hydrocarbons (TRPH), total petroleum hydrocarbons, volatile organic compounds (VOCs), semi-volatile organic compounds and metals in the soil.

2.3.4 In November 1998, Dames and Moore Corporation completed a Phase II Investigation for the Site. The Phase II Investigation detected concentrations of TRPH, metals, trichloroethene (TCE) and tetrachloroethene (PCE) in the shallow soils at the Amtrak Property.

In July 2001, Clayton Group Services, Inc. completed a Soil and Soil Gas Investigation Report (Report) for the Amtrak facility. The investigation was conducted under a Voluntary Cleanup Agreement (VCA) between DTSC and Amtrak (Docket No. HAS-A 99/00-044, dated April 5, 2000). Ten boreholes were completed with depths ranging from 69 feet to 92 feet below ground surface. Seven of the boreholes were placed in a north-south configuration on the Amtrak Property near the SSL-497 boundary. The remaining three boreholes were located further east into the Amtrak Property.

In the seven boreholes closest to the SSL-497 boundary, the following were the highest VOC concentrations found in soil: 158 micrograms per kilogram (ug/kg) TCE, 446 ug/kg PCE, and 59 ug/kg benzene. In the three boreholes further away from the SSL-497 boundary, the following were the highest VOC concentrations: 132 ug/kg TCE, 1,130 ug/kg PCE, and 169 ug/kg benzene. The highest concentrations of PCE and benzene were found away from the SSL-497 boundary, not along the boundary as would be expected if SSL-497 was the source of the VOC plume. Also, the highest concentration of benzo(a)anthracene (950 ug/kg) was found in the boring located furthest away from the SSL-497 boundary, along with other compounds.

2.3.6 Review of the data in the Report indicated that the VOC contaminants found at the Amtrak Property were similar to those observed at the SSL-497 property. However, other contaminants that were found on the Amtrak Property were at higher concentrations than were found on the SSL-497 property. For example, the highest concentration of benzo(a)anthracene found on the SSL-497 property was 300 ug/kg, but

at the Amtrak Property the highest concentration found was 950 ug/kg. Also, the highest concentration of benzo(b)fluoranthene found on the SSL-497 property was 230 ug/kg, but at the Amtrak Property the highest concentration found was 500 ug/kg.

DTSC believes that the data obtained from the Amtrak investigation does not rule out the Amtrak Property as a source of the contamination found along the Amtrak/SSL-497 site boundary, but instead indicates the presence of other contamination sources on the Amtrak Property. Following review of the Report, DTSC requested Amtrak to conduct a Site-wide investigation, but Amtrak has not done so.

2.3.7 In a letter dated May 3, 2002, DTSC informed Amtrak that since it did not appear that further progress would be made under the VCA, DTSC considered the VCA completed but that further action was nevertheless required. DTSC also informed Amtrak that DTSC intended to conduct all further work under a consent order or a unilateral order.

2.4 Hazardous Substances Found at the Site. Benzene, benzo(a)-anthracene, benzo(b)fluoranthene, naphthalene, PCE, toluene, TCE, and xylene, were found in soils at the Site. Each of these is a hazardous substance as defined in Health and Safety Code section 25316.

2.5 Health Effects. Health effects and properties of substances found at the Site are listed below.

Benzene - Benzene is a highly flammable colorless liquid with a sweet odor. Exposure to this chemical results in the irritation of the eyes, skin, and nose. It also causes nausea, headache, giddiness, fatigue, staggered gait, anorexia, lassitude, dermatitis, depression, and affects the bone marrow. The Department of Health and Human Services has determined that benzene is a known human carcinogen.

Benzo(a)anthracene – benzo(a)anthracene is a polycyclic aromatic hydrocarbon (PAH) which classified as a probable human carcinogen. Benzo(a)anthracene has been found to produce tumors in mice exposed by gavage; intraperitoneal, subcutaneous or intramuscular injection; and topical application. Benzo(a)anthracene has also produced mutations in bacteria and in mammalian cells, and has transformed mammalian cells in culture.

Benzo(b)fluoranthene – benzo(b)fluoranthene is a PAH which is classified as a probable human carcinogen, based on sufficient animal carcinogenicity data. Experimental evidence links exposure to benzo(b)fluoranthene with lung/thorax, liver and injection site tumors.

Naphthalene - Naphthalene is a white solid that is found naturally in fossil fuels or is produced by burning tobacco or wood. Exposure symptoms include: irritated eyes, headache, confusion, excitement, nausea, vomiting, malaise, abdominal pain, irritated

bladder, profuse sweating, jaundice, hematuria, hemoglobinuria, renal shutdown, dermatitis, optical neuritis, corneal damage.

Toluene - Toluene is a clear, colorless liquid with a distinctive smell. It is used in making paints, paint thinners, fingernail polish, lacquers, adhesives, and rubber and in some printing and leather tanning processes. Exposure symptoms include: irritated eyes and nose, fatigue, weakness, confusion, euphoria, dizziness, headache, dilated pupils, lacrimation, nervousness, muscle fatigue, insomnia, paresthesia, dermatitis, and liver and kidney damage.

Trichloroethene (TCE) - This volatile organic compound is an irritant to the eyes and nose. TCE may cause nausea, attitude of irresponsibility, blurred vision, and disturbance of central nervous system that may result in cardiac failure. Skin contact with TCE causes dermatitis. TCE causes irritating sensation and lachrymation of the eyes. Also, TCE is known to be carcinogenic in experimental animals.

Tetrachloroethene (PCE) - This volatile organic compound can affect the central nervous system and cause anesthesia. PCE may irritate the skin and eyes after prolonged contact. It may cause liver damage and is known to be carcinogenic in experimental animals.

Xylene - Xylene is a flammable colorless, sweet smelling liquid. Exposure symptoms include: irritated eyes, skin, nose, and throat, dizziness, excitement, drowsiness, in-coordination, staggering gait, corneal vacuolization, anorexia, nausea, vomiting, abdominal pain, and dermatitis.

2.6 Routes of Exposure.

2.6.1 The Site is currently operating as an active railroad maintenance facility. Potential for exposure to hazardous substances for the population working within or in the immediate vicinity of the Site therefore exists.

2.6.2 Previous sampling has shown that hazardous substances may have migrated to the groundwater, and could potentially migrate to lower aquifers from which drinking water is drawn. Potential that the population on and in the vicinity of the Site will be exposed to contaminated groundwater therefore exists.

2.6.3 The Site is not entirely paved and exposed soil is present throughout the property. Potential that the population on and in the vicinity of the Site will be exposed to airborne contaminants therefore exists.

2.6.4 Soil sampling has shown that the soil is contaminated with hazardous substances. Potential that the population on and in the vicinity of the Site will be exposed to the contaminated soil therefore exists.

2.7 Public Health and/or Environmental Risk. The Site is used for industrial purposes. Numerous businesses are within one-half mile of the Site. The Site is adjacent to the Los Angeles River, which drains to the Pacific Ocean. Therefore, public health and the environment may be threatened through direct human contact or exposure and direct exposure of the environment to hazardous substances from the Site.

III. CONCLUSIONS OF LAW

3.1 Respondent is a responsible party as defined by Health and Safety Code section 25323.5.

3.2 Each of the substances listed in Section 2.4 is a "hazardous substance" as defined in Health and Safety Code section 25316.

3.3 There has been a "release" and there is a "threatened release" of hazardous substances listed in Section 2.4 at the Site, as defined in Health and Safety Code section 25320.

3.4 The actual and threatened release of hazardous substances at the Site may present an imminent and substantial endangerment to the public health or welfare or to the environment.

3.5 Response action is necessary to abate a public nuisance and to protect and preserve the public health.

IV. DETERMINATION

4.1 Based on the foregoing findings of fact and conclusions of law, DTSC hereby determines that response action is necessary at the Site because there has been a release or there is a threatened release of a hazardous substance.

4.2 Based on the foregoing findings of fact and conclusions of law, DTSC hereby determines that there may be an imminent and substantial endangerment to the public health or welfare or to the environment because of the release or the threatened release of the hazardous substances at the Site.

V. ORDER

Based on the foregoing FINDINGS, CONCLUSIONS, AND DETERMINATION, IT IS HEREBY ORDERED THAT Respondent conduct the following response actions in the manner specified herein, and in accordance with a schedule specified by DTSC as follows:

5.1 All response actions taken pursuant to this Order shall be consistent with the requirements of Chapter 6.8 (commencing with section 25300), Division 20 of the

Health and Safety Code and any other applicable state or federal statutes and regulations.

5.1.1 Site Remediation Strategy. The purpose of this Order is to require for the Site: implementation of any appropriate removal actions, completion of a Remedial Investigation/Feasibility Study (RI/FS), preparation of a Remedial Action Plan (RAP), preparation of California Environmental Quality Act (CEQA) documents, and Design and Implementation of the remedial actions approved in the RAP. An overall Site investigation and remediation strategy that reflects program goals, objectives, and requirements shall be developed by Respondent in conjunction with DTSC. Current knowledge of the Site contamination sources, exposure pathways, and receptors shall be used in developing this strategy.

An objective of the Site investigations shall be to identify immediate or potential risks to public health and the environment and prioritize and implement response actions using removal actions and operable units, if appropriate, based on the relative risks at the Site. Respondent and DTSC shall develop and possibly modify Site priorities throughout the course of the investigations. If necessary for the protection of public health and the environment, DTSC will require additional response actions not specified in this Order to be performed as removal actions or separate operable units. Removal actions shall be implemented in accordance with a workplan and implementation schedule submitted by Respondent and approved by DTSC.

For operable unit remedial actions, DTSC will specify the separate and focused remedial phase activities to be conducted as RI/FS, RAP, Design, and Implementation. The focused activities shall be conducted in accordance with the corresponding remedial phase requirements specified in this Order, but shall only address the area or problem of the operable unit.

5.1.2 Remedial Action Objectives. Based on available information, DTSC has preliminarily determined that the remedial action objectives for the Site shall include:

(a) Protection of existing and potential beneficial uses of groundwater. The Regional Water Quality Control Board Basin Plan identifies public water supply as a beneficial use of the Central Groundwater Basin, which contains the Gaspar aquifer which underlies the Site. Therefore, drinking water standards or more conservative values determined by a Risk Assessment shall be remedial action objectives for this Site.

(b) Cleanup of hazardous substances in the soil, to risk-based levels.

5.1.3 Removal Actions. Respondent shall undertake removal actions if, during the course of the RI or FS, DTSC determines that they are necessary to mitigate the release of hazardous substances at or emanating from the Site. DTSC may require Respondent to submit a removal action workplan that includes a schedule for implementing the workplan for DTSC's approval. Either DTSC or Respondent may

identify the need for removal actions. Respondent shall implement the following removal actions.

(a) Fence and Post.

- 1) Within 30 days of the effective date of this Order, Respondent shall install a fence if necessary. The fence shall secure, at a minimum, the areas specified on the Site map (Exhibit B).
- 2) Within 30 days of the effective date of this Order, Respondent shall install signs that are visible from the area surrounding the contaminated Site and posted at each route of entry into the Site, including those routes likely to be used by unauthorized persons. Such routes of entry include: access roads leading to the Site, and facing rivers, creeks, lakes or other waterways that may provide a route of access to the Site.
- 3) The fence and signs shall be constructed of materials able to withstand the elements and shall be continuously maintained for as long as DTSC determines it to be necessary in order to protect public health and safety and the environment.

(b) Drainage Control. Drainage control shall be implemented if necessary as determined by the RI/FS.

(c) Stabilization of Structures. Stabilization of structures shall be implemented if necessary.

(d) Interim Capping. Depending upon the results of the RI, areas may be required to be capped with impermeable materials to limit direct human contact with contaminated soil and limit infiltration of rainwater.

(e) Chemical Stabilization. Depending upon the results of the RI, use of chemicals and other materials to retard the spread of the release or to mitigate its effects - where the use of such chemicals will reduce the spread of, or direct contact with, the contamination.

(f) Contaminated Soil Removal. If necessary upon the results of the RI/FS.

(g) Containerized Waste Removal. If necessary upon the results of the RI/FS.

(h) Alternative Water Supply. If necessary upon the results of the RI/FS.

(i) Interim Groundwater Extraction. If necessary upon the results of the RI/FS.

5.1.4 Operable Units. Depending upon the results of the RI/FS, remedial action

on one or more elements of the Site may be able to proceed while the RI/FS process continues on other elements. Respondent may conduct separate RI/FS investigations and subsequent response actions for operable units in accordance with the schedules contained within this Order, as approved by DTSC.

5.1.5 Groundwater Monitoring. After constructing groundwater monitoring wells as part of the Remedial Investigation, Respondent shall immediately begin interim groundwater monitoring in accordance with a DTSC-approved Groundwater Monitoring Plan (GMP). The Site specific GMP document shall be prepared in accordance with the scope of work. Once the GMP is implemented, monitoring shall be conducted until DTSC determines it is appropriate to terminate such monitoring.

5.1.6 Air Monitoring. If DTSC determines that it is necessary, Respondent shall conduct interim air monitoring in accordance with DTSC/South Coast Air Quality Management District guidelines suitable for the Site. An Air Monitoring Plan (AMP) shall be developed specific for the Site to address hazards related to chemical exposure, airborne contamination, dust control, and wind-caused soil erosion. Once the AMP is implemented, monitoring shall be conducted until DTSC determines it is appropriate to terminate such monitoring.

5.1.7 Site Remediation Strategy Meeting. Respondent, including the Project Coordinator (Section 6.1) and Project Engineer/Geologist (Section 6.2), shall meet with DTSC within 30 days from the effective date (and concurrent with the development of the RI/FS workplan) to discuss the Site remediation strategy. These discussions will include Site risks and priorities; project planning, phasing and scheduling, remedial action objectives, remedial technologies, data quality objectives, and the RI/FS workplan. Results of the discussions will be included in the Scoping Document, Section 5.2.2(b) of this Order.

5.2 Remedial Investigation/Feasibility Study (RI/FS). A RI/FS shall be conducted for the Site. The RI/FS may be performed in phases, if appropriate, based on Site priorities. The RI/FS shall be prepared consistent with U.S. EPA's "Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA," October 1988. The purpose of the RI/FS is to assess Site conditions and to evaluate alternatives to the extent necessary to select a remedy appropriate for the Site. RI and FS activities shall be conducted concurrently and iteratively so that the investigations can be completed expeditiously. Because of the unknown nature of the Site and iterative nature of the RI/FS, additional data requirements and analyses may be identified throughout the process. Respondent shall fulfill additional data and analysis needs identified by DTSC; these additional data and analysis requests will be consistent with the general scope and objectives of this Order.

The following elements of the RI/FS process and those defined by DTSC in Section 5.1.4 of this Order shall be preliminarily defined in the Scoping Document and refined and modified as additional information is gathered throughout the RI/FS process.

- (a) Conceptual Site Model identifying contamination sources, exposure pathways, and receptors;
- (b) Federal, State and local remedial action objectives including applicable legal requirements or relevant and appropriate standards;
- (c) Project phasing including the identification of removal actions and operable units;
- (d) General response actions and associated remedial technology types; and
- (e) The need for treatability studies.

5.2.1 RI/FS Objectives. The objectives of the RI/FS are to:

- (a) Determine the nature and full extent of hazardous substance contamination of air, soil, surface water and groundwater at the Site;
- (b) Identify all actual and potential exposure pathways and routes through environmental media;
- (c) Determine the magnitude and probability of actual or potential harm to public health, safety or welfare or to the environment posed by the threatened or actual release of hazardous substances at or from the Site;
- (d) Identify and evaluate appropriate response actions to prevent or minimize future releases and mitigate any releases that have already occurred; and
- (e) Collect and evaluate the information necessary to prepare a Remedial Action Plan (RAP).

5.2.2 RI/FS Workplan. Within 60 days from the effective date of this Order, Respondent shall prepare and submit to DTSC for review and approval a detailed RI/FS Workplan and implementation schedule that covers all the activities necessary to conduct a complete RI/FS of the Site.

The RI/FS Workplan shall include a detailed description of the tasks to be performed, information or data needed for each task, and the deliverables that will be submitted to DTSC. Either Respondent or DTSC may identify the need for additional work.

These RI/FS Workplan deliverables are discussed in the remainder of this Section, with a schedule for implementation, and monthly reports. The RI/FS Workplan shall include all the sections and address each component listed below.

(a) Project Management Plan. The Project Management Plan shall define relationships and responsibilities for major tasks and project management items by Respondent, its contractors, subcontractors, and consultants. The plan shall include an organization chart with the names and titles of key personnel and a description of their individual responsibilities.

(b) Scoping Document. Within 30 days from the effective date of this Order, Respondent shall submit a Scoping Document to DTSC. The Scoping Document shall incorporate program goals, program management principles, and expectations contained in the National Contingency Plan (NCP) (40 Code of Federal Regulations (CFR) Part 300), as amended. It shall include:

- (1) An analysis and summary of the Site background and the physical setting. At a minimum, the following information is required:
 - (A) A map of the Site, identification by Assessor's Parcel Number and/or legal description of each parcel and easement owned by Amtrak at the Site and, if they exist, aerial photographs and blueprints showing buildings and structures;
 - (B) A description of past disposal practices;
 - (C) A list of all hazardous substances that were disposed, discharged, spilled, treated, stored, transferred, transported, handled or used at the Site, and a description of their estimated volumes, concentrations, and characteristics;
 - (D) A description of the characteristics of the hazardous substances at the Site; and
 - (E) If applicable, a description of all current and past manufacturing processes that are or were related to each hazardous substance.
- (2) An analysis and summary of previous response actions including a summary of all existing data including air, soil, surface water, and groundwater data and the Quality Assurance/Quality Control (QA/QC) procedures which were followed;
- (3) Presentation of the Conceptual Site Model;
- (4) The scope and objectives of RI/FS activities;
- (5) Preliminary identification of possible response actions and the data needed for the evaluation of alternatives. Removal actions shall be

proposed, if needed, based on the initial evaluation of threats to public health and the environment. If remedial actions involving treatment can be identified, treatability studies shall be conducted during the characterization phase, unless Respondent and DTSC agree that such studies are unnecessary as set forth in Section 5.4; and

- (6) If applicable, initial presentation of the Site Remediation Strategy.

(c) Field Sampling Plan. The Field Sampling Plan is part of the RI/FS Workplan and shall include:

- (1) Sampling objectives, including a brief description of data gaps and how the field sampling plan will address these gaps;
- (2) Sample locations, including a map showing these locations, and proposed frequency;
- (3) Sample designation or numbering system;
- (4) Detailed specification of sampling equipment and procedures;
- (5) Sample handling and analysis including preservation methods, shipping requirements and holding times; and
- (6) Management plan for wastes generated.

(d) Quality Assurance Project Plan. This plan is part of the RI/FS Workplan and shall include:

- (1) Project organization and responsibilities with respect to sampling and analysis;
- (2) Quality assurance objectives for measurement including accuracy, , and method detection limits. In selecting analytical methods, Respondent shall consider obtaining detection limits at or below potentially applicable legal requirements or relevant and appropriate standards, such as Maximum Contaminant Levels (MCLs) or Maximum Contaminant Level Goals (MCLGs);
- (3) Sampling procedures;
- (4) Sample custody procedures and documentation;
- (5) Field and laboratory calibration procedures;

- (6) Analytical procedures;
- (7) Laboratory to be used certified pursuant to Health and Safety Code section 25198;
- (8) Specific routine procedures used to assess data (precision, accuracy and completeness) and response actions;
- (9) Reporting procedure for measurement of system performance and data quality;
- (10) Data management, data reduction, validation and reporting. Information shall be accessible to downloading into DTSC's system; and
- (11) Internal quality control.

(e) Health and Safety Plan. A Site-specific Health and Safety Plan is part of the RI/FS Workplan and shall be prepared in accordance with federal (29 C.F.R. section 1910.120) and state (Title 8, California Code of Regulations, section 5192) regulations and shall describe the following:

- (1) Field activities including work tasks, objectives, and personnel requirements and a description of hazardous substances on the Site;
- (2) Respondent key personnel and responsibilities;
- (3) Potential hazards to workers including chemical hazards, physical hazards, confined spaces and climatic conditions;
- (4) Potential risks arising from the work being performed including the impact to workers, the community and the environment;
- (5) Exposure monitoring plan;
- (6) Personal protective equipment and engineering controls;
- (7) Site controls including work zones and security measures;
- (8) Decontamination procedures;
- (9) General safe work practices;
- (10) Sanitation facilities;
- (11) Standard operating procedures;

(12) Emergency response plan covering workers addressing potential hazardous material releases;

(13) Training requirements;

(14) Medical surveillance program; and

(15) Record keeping.

(f) Other Activities. A description of any other significant activities that are appropriate to complete the RI/FS shall be included.

(g) Schedule. A schedule that provides specific time frames and dates for completion of each activity and report conducted or submitted under the RI/FS Workplan including the schedules for removal actions and operable unit activities.

DTSC may determine that in addition to tasks defined in the initially approved work plan or plans, other additional work may be necessary to accomplish the objectives of this Order as set forth in the scope of work. DTSC may require that the Respondent perform these response actions in addition to those required by the initially approved work plan or plans, including any approved modifications, if it determines that such actions are necessary to complete the work. Respondent shall confirm their willingness to perform the additional work in writing to DTSC within 7 days of receipt of the DTSC request for additional work. Respondent shall implement the additional tasks that DTSC determines are necessary. The additional work shall be completed according to the standards, specifications, and schedule set forth or approved by DTSC in a written modification to the work plan or plans. DTSC reserves the right to conduct the work itself at any point, to seek reimbursement from Respondent and to seek any other appropriate relief.

5.2.3 RI/FS Workplan Implementation. Respondent shall implement the approved RI/FS Workplan.

5.2.4 RI/FS Workplan Revisions. If Respondent proposes to modify any methods or initiate new activities for which no Field Sampling Plan, Health and Safety Plan, Quality Assurance Project Plan or other necessary procedures/plans have been established, Respondent shall prepare an addendum to the approved plans for DTSC review and approval prior to modifying the method or initiating new activities.

5.3 Interim Screening and Evaluation of Remedial Technologies. At the request of DTSC, Respondent shall submit an interim document that identifies and evaluates potentially suitable remedial technologies and recommendations for treatability studies.

5.4 Treatability Studies. If required by DTSC, treatability testing will be performed by Respondent to develop data for the detailed remedial alternatives. Treatability testing may be required to demonstrate the implementability and effectiveness of technologies, unless Respondent can show DTSC that similar data or documentation or information exists. The required deliverables would include: a workplan, a sampling and analysis plan, and a treatability evaluation report. To the extent practicable, treatability studies will be proposed and implemented during the latter part of Site characterization.

5.5 Remedial Investigation (RI) Report. The RI Report shall be prepared and submitted by Respondent to DTSC for review and approval in accordance with the approved RI/FS workplan schedule. The purpose of the RI is to collect data necessary to adequately characterize the Site for the purposes of defining risks to public health and the environment and developing and evaluating effective remedial alternatives. Site characterization may be conducted in one or more phases to focus sampling efforts and increase the efficiency of the investigation. Respondent shall identify the sources of contamination and define the nature, extent, and volume of the contamination. Using this information, the contaminant fate and transport shall be evaluated. The RI Report shall contain:

(a) Site Physical Characteristics. Data on the physical characteristics of the Site and surrounding area shall be collected to the extent necessary to define potential transport pathways and receptor populations and to provide sufficient engineering data for development and screening of remedial action alternatives.

(b) Sources of Contamination. Contamination sources (including heavily contaminated media) shall be defined. The data shall include the source locations, type of contaminant, waste characteristics, and Site features related to contaminant migration and human exposure.

(c) Nature and Extent of Contamination. Contaminants shall be identified and the horizontal and vertical extent of contamination shall be defined in soil, groundwater, surface water, sediment, air, and biota. Spatial and temporal trends and the fate and transport of contamination shall be evaluated.

5.6 Baseline Health and Ecological Risk Assessment. Respondent shall perform health and ecological risk assessments for the Site that meet the requirements of Health and Safety Code section 25356.1.5(b). Respondent shall submit a Baseline Health and Ecological Risk Assessment Report within 60 days from the approval of the RI Report. The report shall be prepared consistent with U.S. EPA and California Environmental Protection Agency guidance and regulations, including as a minimum: Risk Assessment Guidance for Superfund, Volume 1; Human Health Evaluation Manual, December 1989; Superfund Exposure Assessment Manual, April 1988; Risk Assessment Guidance for Superfund, Volume 2, Environmental Evaluation Manual, March 1989; and all other related or relevant policies, practices and guidelines of the California Environmental Protection Agency, and policies, practices and

guidelines developed by U.S. EPA pursuant to 40 C.F.R. section 300.400 et seq. The Baseline Health and Ecological Risk Assessment Report shall include the following components:

(a) Contaminant Identification. Characterization data shall identify contaminants of concern for the risk assessment process.

(b) Environmental Evaluation. An ecological assessment consisting of:

(1) Identification of sensitive environments and rare, threatened, or endangered species and their habitats; and

(2) As appropriate, ecological investigations to assess the actual or potential effects on the environment and/or develop remediation criteria.

(c) Exposure Assessment. The objectives of an exposure assessment are to identify actual or potential exposure pathways, to characterize the potentially exposed populations, and to determine the extent of the exposure. Exposed populations may include industrial workers, residents, and subgroups that comprise a meaningful portion of the general population, including, but not limited to, infants, children, pregnant women, the elderly, individuals with a history of serious illness, or other subpopulations, that are identifiable as being at greater risk of adverse health effects due to exposure to hazardous substances than the general population.

(d) Toxicity Assessment. Respondent shall evaluate the types of adverse health or environmental effects associated with individual and multiple chemical exposures; the relationship between magnitude of exposures and adverse effects; and related uncertainties such as the weight of evidence for a chemical's potential carcinogenicity in humans.

(e) Risk Characterization. Risk characterization shall include the potential risks of adverse health or environmental effects for each of the exposure scenarios derived in the exposure assessment.

5.7 Feasibility Study (FS) Report. The FS Report shall be prepared and submitted by Respondent to DTSC for review and approval, no later than 30 days from submittal of the RI Report. The FS Report shall summarize the results of the FS including the following:

(a) Documentation of all treatability studies conducted.

(b) Development of medium specific or operable unit specific remedial action objectives, including legal requirements and other promulgated standards that are relevant.

(c) Identification and screening of general response actions, remedial technologies, and process options on a medium and/or operable unit specific basis.

(d) Evaluation of alternatives based on the criteria contained in the NCP including:

Threshold Criteria:

- (1) Overall protection of human health and the environment.
- (2) Compliance with legal requirements and other promulgated standards that are relevant.

Primary Balancing Criteria:

- (1) Long-term effectiveness and permanence.
- (2) Reduction of toxicity, mobility, or volume through treatment.
- (3) Short-term effectiveness.
- (4) Implementability based on technical and administrative feasibility.
- (5) Cost.

Modifying Criteria:

- (1) State and local agency acceptance.
- (2) Community acceptance.

5.8 Public Participation Plan (Community Relations). Respondent shall work cooperatively with DTSC in providing an opportunity for meaningful public participation in response actions. Any such public participation activities shall be conducted in accordance with Health and Safety Code sections 25356.1 and 25358.7 and DTSC's most current Public Participation Policy and Guidance Manual, and shall be subject to DTSC's review and approval.

Respondent, in coordination with DTSC, shall conduct a baseline community survey and develop a Public Participation Plan (PPP) that describes how, under this Order, the public and adjoining community will be kept informed of activities conducted at the Site and how Respondent will be responding to inquiries from concerned citizens. Major steps in developing a PPP are as follows:

- (a) Develop proposed list of interviewees;

- (b) Schedule and conduct community interviews; and
- (c) Analyze interview notes, and develop objectives.

Respondent shall submit a PPP within 45 days of DTSC's notification that a PPP is required.

Respondent shall implement any of the public participation support activities identified in the PPP, at the request of DTSC. DTSC retains the right to implement any of these activities independently. These activities include, but are not limited to, development and distribution of fact sheets; public meeting preparations; and development and placement of public notices.

5.9 California Environmental Quality Act (CEQA). DTSC will comply with CEQA for all activities required by this Order that are projects subject to CEQA. Upon DTSC request, Respondent shall provide DTSC with any information that DTSC deems necessary to facilitate compliance with CEQA. The costs incurred by DTSC in complying with CEQA are response costs and Respondent shall reimburse DTSC for such costs pursuant to Section 6.19.

5.10 Remedial Action Plan (RAP). No later than 30 days after DTSC approval of the FS Report, Respondent shall prepare and submit to DTSC a draft RAP. The draft RAP shall be consistent with the NCP and Health and Safety Code section 25356.1. The draft RAP public review process may be combined with that of any other documents required by CEQA. The draft RAP shall be based on and summarize the approved RI/FS Reports, and shall clearly set forth:

- (a) Health and safety risks posed by the conditions at the Site.
- (b) The effect of contamination or pollution levels upon present, future, and probable beneficial uses of contaminated, polluted, or threatened resources.
- (c) The effect of alternative remedial action measures on the reasonable availability of groundwater resources for present, future, and probable beneficial uses.
- (d) Site specific characteristics, including the potential for offsite migration of hazardous substances, the surface or subsurface soil, and the hydro geologic conditions, as well as preexisting background contamination levels.
- (e) Cost-effectiveness of alternative remedial action measures. Land disposal shall not be deemed the most cost effective measure merely on the basis of lower short term cost.
- (f) The potential environmental impacts of alternative remedial action measures, including, but not limited to, land disposal of the untreated hazardous substances as opposed to treatment of the hazardous substances to remove or reduce their

volume, toxicity, or mobility prior to disposal.

(g) A statement of reasons setting forth the basis for the removal and remedial actions selected. The statement shall include an evaluation of each proposed alternative submitted and evaluate the consistency of the removal and remedial actions proposed by the plan with the NCP.

(h) A schedule for implementation of all proposed removal and remedial actions.

In conjunction with DTSC, Respondent shall implement the public review process specified in DTSC's Public Participation Policy and Guidance Manual. Within 10 days of closure of the public comment period, Respondent shall submit to DTSC a written Responsiveness Summary of all written and oral comments presented and received during the public comment period.

Following DTSC's review and finalization of the Responsiveness Summary, DTSC will specify any changes to be made in the RAP. Respondent shall modify the document in accordance with DTSC's specifications and submit a final RAP within 15 days of receipt of DTSC's comments.

5.11 Remedial Design (RD). Within 60 days after DTSC approval of the final RAP, Respondent shall submit to DTSC for review and approval a RD describing in detail the technical and operational plans for implementation of the final RAP that includes the following elements, as applicable:

(a) Design criteria, process unit and pipe sizing calculations, process diagrams, and final plans and specifications for facilities to be constructed.

(b) Description of equipment used to excavate, handle, and transport contaminated material.

(c) A field sampling and laboratory analysis plan addressing sampling during implementation and to confirm achievement of the performance objectives of the RAP.

(d) A transportation plan identifying routes of travel and final destination of wastes generated and disposed.

(e) For groundwater extraction systems: aquifer test results, capture zone calculations, specifications for extraction and performance monitoring wells, and a plan to demonstrate that capture is achieved.

(f) An updated health and safety plan addressing the implementation activities.

(g) Identification of any necessary permits and agreements.

(h) An operation and maintenance plan including any required monitoring.

(i) A detailed schedule for implementation of the remedial action consistent with the schedule contained in the approved RAP including procurement, mobilization, construction phasing, sampling, facility startup, and testing.

5.12 Deed Restrictions. If the approved remedy in the Final RAP includes deed restrictions, the current owner of the Site shall sign and record deed restrictions approved by DTSC within 90 days of DTSC's approval of the final RAP.

5.13 Implementation of Final RAP. Upon DTSC approval of the RD, Respondent shall implement the final RAP in accordance with the approved schedule in the RD. Within 30 days of completion of field activities, Respondent shall submit an Implementation Report documenting the implementation of the Final RAP and RD.

5.14 Operation and Maintenance (O&M). Respondent shall comply with all O&M requirements in accordance with the final RAP and approved RD. Within 30 days of the date of DTSC's request, Respondent shall prepare and submit to DTSC for approval an O&M plan that includes an implementation schedule. Respondent shall implement the plan in accordance with the approved schedule.

5.15 Five-Year Review. Respondent shall review and reevaluate the remedial action after a period of two (2) years from the completion of construction and startup, and every two (2) years thereafter. The review and reevaluation shall be conducted to determine if human health and the environment are being protected by the remedial action. Within thirty (30) calendar days before the end of the time period approved by DTSC to review and reevaluate the remedial action, Respondent shall submit a remedial action review workplan to DTSC for review and approval. Within sixty (60) days of DTSC's approval of the workplan, Respondent shall implement the workplan and shall submit a comprehensive report of the results of the remedial action review. The report shall describe the results of all sample analyses, tests and other data generated or received by Respondent and evaluate the adequacy of the implemented remedy in protecting public health, safety and the environment. As a result of any review performed under this Section, Respondent may be required to perform additional Work or to modify Work previously performed.

5.16 Changes During Implementation of the Final RAP. During the implementation of the final RAP and RD, DTSC may specify such additions, modifications, and revisions to the RD as DTSC deems necessary to protect public health and safety or the environment or to implement the RAP.

5.17 Stop Work Order. In the event that DTSC determines that any activity (whether or not pursued in compliance with this Order) may pose an imminent or substantial endangerment to the health or safety of people on the Site or in the surrounding area or to the environment, DTSC may order Respondent to stop further implementation of this Order for such period of time needed to abate the endangerment.

In the event that DTSC determines that any Site activities (whether or not pursued in compliance with this Order) are proceeding without DTSC authorization, DTSC may order Respondent to stop further implementation of this Order or activity for such period of time needed to obtain DTSC authorization, if such authorization is appropriate. Any deadline in this Order directly affected by a Stop Work Order, under this Section, shall be extended for the term of the Stop Work Order.

5.18 Emergency Response Action/Notification. In the event of any action or occurrence (such as a fire, earthquake, explosion, or human exposure to hazardous substances caused by the release or threatened release of a hazardous substance) during the course of this Order, Respondent shall immediately take all appropriate action to prevent, abate, or minimize such emergency, release, or immediate threat of release and shall immediately notify the Project Manager. Respondent shall take such action in consultation with the Project Manager and in accordance with all applicable provisions of this Order. Within seven days of the onset of such an event, Respondent shall furnish a report to DTSC, signed by Respondent Project Coordinator, setting forth the events that occurred and the measures taken in the response thereto. In the event that Respondent fail to take appropriate response and DTSC takes the action instead, Respondent shall be liable to DTSC for all costs of the response action. Nothing in this Section shall be deemed to limit any other notification requirement to which Respondent may be subject.

5.19 Discontinuation of Remedial Technology. Any remedial technology employed in implementation of the final RAP shall be left in place and operated by Respondent until and except to the extent that DTSC authorizes Respondent in writing to discontinue, move or modify some or all of the remedial technology because Respondent has met the criteria specified in the final RAP for its discontinuance, or because the modifications would better achieve the goals of the final RAP.

5.20 Financial Assurance. Respondent shall demonstrate to DTSC and maintain financial assurance for operation and maintenance and monitoring. Respondent shall demonstrate financial assurance prior to the time that operation and maintenance activities are initiated and shall maintain it throughout the period of time necessary to complete all required operation and maintenance activities. The financial assurance mechanisms shall meet the requirements of Health and Safety Code Section 25355.2. All financial assurance mechanisms are subject to the review and approval of DTSC.

VI. GENERAL PROVISIONS

6.1 Project Coordinator. Within ten (10) days from the date the Order is signed by DTSC, Respondent shall submit to DTSC in writing the name, address, and telephone number of a Project Coordinator whose responsibilities will be to receive all notices, comments, approvals, and other communications from DTSC. Respondent shall promptly notify DTSC of any change in the identity of the Project Coordinator. Respondent shall obtain approval from DTSC before the new Project Coordinator

performs any work under this Order.

6.2 Project Engineer/Geologist. The work performed pursuant to this Order shall be under the direction and supervision of a qualified professional engineer or a registered geologist in the State of California, with expertise in hazardous substance Site cleanups. Within 30 calendar days from the date this Order is signed by DTSC, Respondent shall submit: a) The name and address of the project engineer or geologist chosen by Respondent; and b) in order to demonstrate expertise in hazardous substance cleanup, the resumé of the engineer or geologist, and the statement of qualifications of the consulting firm responsible for the work. Respondent shall promptly notify DTSC of any change in the identity of the Project Engineer/Geologist. Respondent shall obtain approval from DTSC before the new Project Engineer/Geologist performs any work under this Order.

6.3 Monthly Summary Reports. Within sixty (60) days from the date this Order is signed by DTSC, and on a monthly basis thereafter, Respondent shall submit a Monthly Summary Report of its activities under the provisions of this Order. The report shall be received by DTSC by the 15th day of each month and shall describe:

- (a) Specific actions taken by or on behalf of Respondent during the previous calendar month;
- (b) Actions expected to be undertaken during the current calendar month;
- (c) All planned activities for the next month;
- (d) Any requirements under this Order that were not completed;
- (e) Any problems or anticipated problems in complying with this Order; and
- (f) All results of sample analyses, tests, and other data generated under this Order during the previous calendar month, and any significant findings from these data.

6.4 Quality Assurance/Quality Control (QA/QC). All sampling and analysis conducted by Respondent under this Order shall be performed in accordance with QA/QC procedures submitted by Respondent and approved by DTSC pursuant to this Order.

6.5 Submittals. All submittals and notifications from Respondent required by this Order shall be sent simultaneously to:

Mr. Thomas M. Cota, Chief
Attention: Mr. Pradip Desai (three copies of workplans and reports)
Southern California Cleanup Operations Branch
Department of Toxic Substances Control

5796 Corporate Avenue
Cypress, CA 90630

6.6 Communications. All approvals and decisions of DTSC made regarding submittals and notifications will be communicated to Respondent in writing by the Site Mitigation Branch Chief, or his/her designee. No informal advice, guidance, suggestions or comments by DTSC regarding reports, plans, specifications, schedules or any other writings by Respondent shall be construed to relieve Respondent of the obligation to obtain such formal approvals as may be required.

6.7 DTSC Review and Approval.

(a) All response actions taken pursuant to this Order shall be subject to the approval of DTSC. Respondent shall submit all deliverables required by this Order to DTSC. Once the deliverables are approved by DTSC, they shall be deemed incorporated into and, where applicable, enforceable under this Order.

(b) If DTSC determines that any report, plan, schedule or other document submitted for approval pursuant to this Order fails to comply with this Order or fails to protect public health or safety or the environment, DTSC may:

(1) Modify the document as deemed necessary and approve the document as modified; or

(2) Return comments to Respondent with recommended changes and a date by which Respondent must submit to DTSC a revised document incorporating the recommended changes.

(3) Any modifications, comments or other directives issued pursuant to (a) above, are incorporated into this Order. Any noncompliance with these modifications or directives shall be deemed a failure or refusal to comply with this Order.

6.8 Compliance with Applicable Laws. Nothing in this Order shall relieve Respondent from complying with all other applicable laws and regulations, including but not limited to compliance with all applicable waste discharge requirements issued by the State Water Resources Control Board or a California Regional Water Quality Control Board. Respondent shall conform all actions required by this Order with all applicable federal, state and local laws and regulations.

6.9 Respondent Liabilities. Nothing in this Order shall constitute or be construed as a satisfaction or release from liability for any conditions or claims arising as a result of past, current or future operations of Respondent. Nothing in this Order is intended or shall be construed to limit the rights of any of the parties with respect to claims arising out of or relating to the deposit or disposal at any other location of substances removed from the Site. Nothing in this Order is intended or shall be

construed to limit or preclude DTSC from taking any action authorized by law to protect public health or safety or the environment and recovering the cost thereof. Notwithstanding compliance with the terms of this Order, Respondent may be required to take further actions as are necessary to protect public health and the environment.

6.10 Site Access. Access to the Site and laboratories used for analyses of samples under this Order shall be provided at all reasonable times to employees, contractors, and consultants of DTSC. Nothing in this Section is intended or shall be construed to limit in any way the right of entry or inspection that DTSC or any other agency may otherwise have by operation of any law. DTSC and its authorized representatives shall have the authority to enter and move freely about all property at the Site at all reasonable times for purposes including, but not limited to: inspecting records, operating logs, sampling and analytic data, and contracts relating to this Site; reviewing the progress of Respondent in carrying out the terms of this Order; conducting such tests as DTSC may deem necessary; and verifying the data submitted to DTSC by Respondent. If railroad safety training is necessary for DTSC's authorized representatives to enter the site, Respondent shall provide such training within ten (10) days of a DTSC request for site access. If such training is not provided within ten days, DTSC's authorized representatives shall not be limited or prevented from entering the Site.

To the extent the Site or any other property to which access is required for the implementation of this Order is owned or controlled by persons other than Respondent, Respondent shall use best efforts to secure from such persons access for Respondent, as well as DTSC, its representatives, and contractors, as necessary to effectuate this Order. To the extent that any portion of the Site is controlled by tenants of Respondent, Respondent shall use best efforts to secure from such tenants, access for Respondent, as well as for DTSC, its representatives, and contractors, as necessary to effectuate this Order. For purposes of this Section, "best efforts" includes the payment of reasonable sums of money in consideration of access. If any access required to complete the Work is not obtained within forty-five (45) days of the effective date of this Order, or within forty-five (45) days of the date DTSC notifies Respondent in writing that additional access beyond that previously secured is necessary, Respondent shall promptly notify DTSC, and shall include in that notification a summary of the steps Respondent has taken to attempt to obtain access. DTSC may, as it deems appropriate, assist Respondent in obtaining access. Respondent shall reimburse DTSC in obtaining access, including, but not limited to, attorneys fees and the amount of just compensation.

6.12 Sampling, Data and Document Availability. Respondent shall permit DTSC and its authorized representatives to inspect and copy all sampling, testing, monitoring or other data generated by Respondent or on Respondent's behalf in any way pertaining to work undertaken pursuant to this Order. Respondent shall submit all such data upon the request of DTSC. Copies shall be provided within seven (7) days of receipt of DTSC's written request. Respondent shall inform DTSC at least seven (7) days in advance of all field sampling under this Order, and shall allow DTSC and its

authorized representatives to take duplicates of any samples collected by Respondent pursuant to this Order. Respondent shall maintain a central depository of the data, reports, and other documents prepared pursuant to this Order.

6.13 Record Retention. All such data, reports and other documents shall be preserved by Respondent for a minimum of ten years after the conclusion of all activities under this Order. If DTSC requests that some or all of these documents be preserved for a longer period of time, Respondent shall either comply with that request or deliver the documents to DTSC, or permit DTSC to copy the documents prior to destruction. Respondent shall notify DTSC in writing at least six months prior to destroying any documents prepared pursuant to this Order.

6.14 Government Liabilities. The State of California shall not be liable for any injuries or damages to persons or property resulting from acts or omissions by Respondent, or related parties specified in Section 6.26, Parties Bound, in carrying out activities pursuant to this Order, nor shall the State of California be held as party to any contract entered into by Respondent or its agents in carrying out activities pursuant to this Order.

6.15 Additional Actions. By issuance of this Order, DTSC does not waive the right to take any further actions authorized by law.

6.16 Extension Requests. If Respondent is unable to perform any activity or submit any document within the time required under this Order, Respondent may, prior to expiration of the time, request an extension of the time in writing. The extension request shall include a justification for the delay. All such requests shall be in advance of the date on which the activity or document is due.

6.17 Extension Approvals. If DTSC determines that good cause exists for an extension, it will grant the request and specify a new schedule in writing. Respondent shall comply with the new schedule incorporated in this Order.

6.18 Liability for Costs. Respondent is liable for all of DTSC's costs that have been incurred in taking response actions at the Site and costs to be incurred in the future. Respondent shall pay all of DTSC's costs incurred in responding to the contamination at the Site, including costs of overseeing response work performed by Respondent, costs to be incurred in the future, and interest as provided by law. DTSC reserves the right to bring an action against Respondent under CERCLA, Health and Safety Code sections 25187.2 and 25360, or any other applicable state or federal statute or common law, for recovery of all response costs (including oversight costs and interest) incurred by DTSC related to this Order and not reimbursed by Respondent, as well as any other unreimbursed past and future costs incurred by DTSC in connection with response actions and oversight of response actions at the Site.

6.19 Payment of Costs. DTSC may bill Respondent for costs incurred in taking response actions at the Site prior to the effective date of this Order. DTSC will bill

Respondent quarterly for its response costs incurred after the effective date of this Order. Respondent shall pay DTSC within sixty (60) days of receipt of any DTSC billing. Any billing not paid within sixty (60) days is subject to interest calculated from the date of the billing pursuant to Health and Safety Code section 25360.1. All payments made by Respondent pursuant to this Order shall be by cashier's or certified check made payable to this "DTSC," and shall bear on the face the project code of the Site (Site 300719) and the Docket number of this Order. Payments shall be sent to:

Department of Toxic Substances Control
Accounting/Cashier
1001 I Street
P.O. Box 806
Sacramento, California 95812-0806

A photocopy of all payment checks shall also be sent to the person designated by DTSC to receive submittals under this Order.

6.20 Severability. The requirements of this Order are severable, and Respondent shall comply with each and every provision hereof, notwithstanding the effectiveness of any other provision.

6.21 Incorporation of Plans, Schedules and Reports. All plans, schedules, reports, specifications and other documents that are submitted by Respondent pursuant to this Order are incorporated in this Order upon DTSC's approval or as modified pursuant to Section 6.7, DTSC Review and Approval, and shall be implemented by Respondent. Any noncompliance with the documents incorporated in this Order shall be deemed a failure or refusal to comply with this Order.

6.22 Modifications. DTSC reserves the right to unilaterally modify this Order. Any modification to this Order shall be effective upon the date the modification is signed by DTSC and shall be deemed incorporated in this Order.

6.23 Time Periods. Unless otherwise specified, time periods begin from the effective date of this Order and "days" means calendar days.

6.24 Termination and Satisfaction. Except for Respondent's obligations under Sections 5.14 Operation and Maintenance (O&M), 5.15 Five-Year Review, 5.20 Financial Assurance, 6.13 Record Retention, 6.18 Liability for Costs, and 6.19 Payment of Costs, Respondent's obligations under this Order shall terminate and be deemed satisfied upon Respondent's receipt of written notice from DTSC that Respondent has complied with all the terms of this Order.

6.25 Calendar of Tasks and Schedules. This Section is merely for the convenience of listing in one location the submittals required by this Order. If there is a conflict between the date for a scheduled submittal within this Section and the date within the Section describing the specific requirement, the latter shall govern.

Calendar of Tasks and Schedules

<u>TASK</u>	<u>SCHEDULE</u>
1. Identify Project Coordinator; Section 6.1;	Within 10 days from the date this Order is signed by DTSC.
2. Identify Project Engineer/Geologist; Section 6.2;	Within 30 days from the date this Order is signed by DTSC.
3. Submit Monthly Summary Reports; Section 6.3;	Within 60 days from the date this Order is signed by DTSC.
4. Fence and Post; Section 5.1.3;	Within 30 days from the date this Order is signed by DTSC.
5. Attend Site Remediation Strategy Meeting; Section 5.1.7;	Within 30 days from the date this Order is signed by DTSC.
6. Submit groundwater level measurements.	Quarterly basis. Beginning the first Monday of a specified month as specified by DTSC.
Groundwater sampling results;	Quarterly basis.
7. Submit RI/FS Workplan; Section 5.2.2;	Within 60 days of the effective date of this Order.
Submit Scoping Document; Section 5.2.2(b);	Within 30 days of the effective date of this Order.
8. Submit interim screening and evaluation document; Section 5.3;	As requested by DTSC.
9. Submit Treatability Studies; Section 5.4;	As required during Site characterization or as requested by DTSC.
10. Submit RI Report; Section 5.5;	Per approved RI/FS Workplan Schedule.
11. Submit Baseline Risk Assessment; Section 5.6;	Within 60 days from submittal of RI Report.
12. Submit FS Report; Section 5.7;	Within 30 days from submittal of RI Report.

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| 13. | Submit Public Participation Plan;
Section 5.8;

Submit and distribute Fact Sheets; | Within 45 days from DTSC notification.

For projected or completed key milestones, as specified in Public Participation Plan or when requested by DTSC. |
| 14. | Submit Initial Study and Checklist;
Section 5.9; | Within 30 days after approval of FS Report. |
| 15. | Submit Draft RAP; Section 5.10; | Within 30 days after approval of FS Report. |
| | Submit Responsiveness Summary; | Within 10 days of closure of public comment period. |
| | Submit Final RAP; | Within 15 days of receipt of DTSC's comments. |
| 16. | Submit Remedial Design;
Section 5.11; | Within 60 days after DTSC's approval of the Final RAP. |
| 17. | Deed Restrictions; Section 5.12; | Within 90 days of approval of Final RAP, as required by DTSC. |
| 18. | Submit Implementation Report;
Section 5.13; | Within 30 days of completion of field activities. |
| 19. | Submit O&M Workplan;
Section 5.14; | Within 30 days of DTSC's request. |
| 20. | Submit Remedial Action Review Workplan; Section 5.15; | Within 30 days before end of two-year period. |
| 21. | Submit Emergency Response Action Report; Section 5.18; | Within 7 days of an emergency response action. |
| 22. | Provide copies of sampling, data, and documentation; Section 6.12; | Within 7 days of receipt of DTSC's request. |
| | Provide prior notice before conducting field sampling; | Inform DTSC 7 days in advance of sampling. |
| 23. | Maintain central depository of data, reports, documentation; and | Maintain central depository for a minimum of ten years after conclusion of all activities conducted pursuant to this Order. |

24. Provide prior written notice to DTSC before destroying any documentation prepared pursuant to this Order; Section 6.13. At least six months prior to destroying any documents.

6.26 Parties Bound. This Order applies to and is binding upon Respondent, and its officers, directors, agents, employees, contractors, consultants, receivers, trustees, successors and assignees, including but not limited to, individuals, partners, and subsidiary and parent corporations. Respondent shall provide a copy of this Order to all contractors, subcontractors, laboratories, and consultants that are retained to conduct any work performed under this Order, within 15 days after the effective date of this Order or the date of retaining their services, whichever is later. Respondent shall condition any such contracts upon satisfactory compliance with this Order. Notwithstanding the terms of any contract, Respondent is responsible for compliance with this Order and for ensuring that its subsidiaries, employees, contractors, consultants, subcontractors, agents and attorneys comply with this Order.

6.27 Change in Ownership. No change in ownership or corporate or partnership status relating to the Site shall in any way alter Respondent's responsibility under this Order. No conveyance of title, easement, or other interest in the Site, or a portion of the Site, shall affect Respondent's obligations under this Order. Unless DTSC agrees that such obligations may be transferred to a third party, Respondent shall be responsible for and liable for any failure to carry out all activities required of Respondent by the terms and conditions of this Order, regardless of Respondent's use of employees, agents, contractors, or consultants to perform any such tasks. Respondent shall provide a copy of this Order to any subsequent owners or successors before ownership rights or stock or assets in a corporate acquisition are transferred.

VII. NOTICE OF INTENT TO COMPLY

7.0 Not later than 15 days after the effective date of this Order, Respondent shall provide written notice, in accordance with paragraph 6.5 Submittals of this Order, stating whether or not Respondent will comply with the terms of this Order. If Respondent does not unequivocally commit to perform all of the requirements of this Order, Respondent shall be deemed to have violated this Order and to have failed or refused to comply with this Order. Respondent's written notice shall describe, using facts that exist on or prior to the effective date of this Order, any "sufficient cause" defenses asserted by Respondent under Health and Safety Code sections 25358.3(a), and 25355.5(a)(1)(B), or CERCLA section 107(c)(3), 42 U.S.C. section 9607(c)(3).

VIII. EFFECTIVE DATE

- 8.0 This Order is final and effective five days from the date of mailing, which is the date of the cover letter transmitting the Order to you.

IX. PENALTIES FOR NONCOMPLIANCE

9.0 Respondent may be liable for penalties of up to \$25,000 for each day out of compliance with any term or condition set forth in this Order and for punitive damages up to three times the amount of any costs incurred by DTSC as a result of Respondent's failure to comply, pursuant to Health and Safety Code sections 25359, 25359.2, 25359.4, and 25367(c). Health and Safety Code section 25359.4.5 provides that a responsible party who complies with this Order, or with another order or agreement concerning the same response actions required by this Order, may seek treble damages from any other responsible party who fails or refuses to comply with this Order without sufficient cause.

DATE OF ISSUANCE: 1/10/03

[original signed by Thomas M. Cota]

Thomas M. Cota, Chief
Southern California Cleanup Operations Branch
Cypress Office
Department of Toxic Substances Control

cc: Site Mitigation and Brownfields Reuse Program
Headquarters, Planning & Policy
Office of Legal Counsel
Cost Recovery Unit

EXHIBIT A

